



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,272	06/12/2001	Yoshinori Tanaka	011350-275	3124

7590 11/02/2005

Platon N. Mandros
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

MILIA, MARK R

ART UNIT	PAPER NUMBER
----------	--------------

2622

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/878,272	Applicant(s) TANAKA, YOSHINORI	
	Examiner Mark R. Milia	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 9/13/05, and has been entered and made of record. Currently, claims 1-5 and 7-33 are pending.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

3. Applicant's arguments, see pages 2-7, filed 9/13/05, with respect to the rejection(s) of claim(s) 1-4, 10, 12-14, 17-19, 24, and 29, more specifically claims 1, 13, 14, 17-19, 24, and 29, under 35 U.S.C. 103(a) as being unpatentable over Outa in view of Kinjo and Arakawa have been fully considered and are persuasive. Particularly, the examiner agrees that the combination of Outa with Kinjo and Arakawa would not have been obvious to one of ordinary skill in the art as Outa is in a different field of endeavor than that of Kinjo and Arakawa and the system of Outa would not have an obvious use for the detection of the color inside of the created objects. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of a previously applied reference and newly found prior art.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 7, 8, 10-15, 17-19, 22, 24, 27, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arakawa in view of U.S. Patent No. 6480196 to Harrington.

Regarding claims 1, 13, and 17, Arakawa discloses an image-processing apparatus, method, and computer readable medium containing a program executable on a computer comprising: a memory that stores raster data obtained by scanning a graphic image (see paragraphs [0014] and [0015]), and a processor connected to said memory (see paragraph [0014]), wherein said processor extracts line graphics based on the raster data (see paragraphs [0011] and [0012]), said processor generates vector data along the extracted line graphics (see paragraphs [0010], [0016]-[0018], and [0019] lines 1-2), and said processor extracts an enclosed area surrounded by the extracted line graphics (see paragraphs [0010] and [0017], reference states that the image that is scanned into the system is extracted in that the color is detected and used in association with the border-line and after the border-line traces the outline of the image, the image is in essence extracted as all information as to location and color are known),

Art Unit: 2622

and said processor detects first information concerning a color within the extracted enclosed area, and detects second information concerning a color of the line graphics (see paragraphs [0012] lines 1-3 and [0017]-[0018], reference state that the color of the image is detected and used in association with the border-line, the border-line is the same color of the image, and therefore also detected, which will trace the image to obtain coordinate information that will be used to reproduce the image using textile equipment).

Arakawa does not disclose expressly wherein said processor detects information concerning line widths of the extracted line graphics.

Harrington discloses wherein said processor detects information concerning line widths of the extracted line graphics (see column 1 lines 42-46 and column 2 lines 35-40 and 44-59).

Regarding claims 14 and 18, Arakawa discloses an image-processing method and computer readable medium containing a program executable on a computer comprising the steps of: receiving raster data obtained by scanning a graphic image (see paragraphs [0014] and [0015]), extracting line graphics based on the raster data (see paragraphs [0011] and [0012]), generating vector data along the extracted line graphics (see paragraphs [0010], [0016]-[0018], and [0019] lines 1-2), detecting a color within the extracted line graphics (see paragraphs [0012] lines 1-3 and [0017]-[0018]), extracting an enclosed area surrounded by the extracted line graphics (see paragraphs [0010] and [0017], reference states that the image that is scanned into the system is extracted in that the color is detected and used in association with the border-line and

after the border-line traces the outline of the image, the image is in essence extracted as all information as to location and color are known), detecting first information concerning a color within the extracted enclosed area detecting second information concerning a color of the line graphics (see paragraphs [0012] lines 1-3 and [0017]-[0018]), and storing said vector data, information concerning the line widths and the color of the line graphics, and information concerning the color within the enclosed area (see paragraphs [0010]-[0012] and [0014]-[0018]).

Arakawa does not disclose expressly detecting information concerning line widths.

Harrington discloses detecting information concerning line widths (see column 1 lines 42-46 and column 2 lines 35-40 and 44-59).

Regarding claims 19, 24, and 29, Arakawa discloses an image processing apparatus, method, and computer readable medium containing a program executable on a computer comprising: a processor for generating a set of data from raster image data including line graphics that form an area surrounded by the line graphics (see paragraphs [0010]-[0012] and [0014]-[0018]), the set of data including (1) vector data tracing the line graphics (see paragraphs [0017]-[0018]), (3) information on a first color of the line graphics (see paragraphs [0017]-[0018]), and (4) information on a second color of the enclosed area (see paragraphs [0010], [0012] lines 1-3 , and [0017], reference states that the image that is scanned into the system is extracted in that the color is detected and used in association with the border-line and after the border-line

Art Unit: 2622

traces the outline of the image, the image is in essence extracted as all information as to location and color are known).

Arakawa does not disclose expressly (2) information on line widths of the line graphics.

Harrington discloses (2) information on line widths of the line graphics (see column 1 lines 42-46 and column 2 lines 35-40 and 44-59).

Arakawa & Harrington are combinable because they are from the same field of endeavor, extraction of image information for use in the scaling of an image for subsequent output.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the line width detection, which is well known and used in the art, as described by Harrington with the system of Arakawa.

The suggestion/motivation for doing so would have been to provide accurate reproduction of an image if growth or shrinkage occurs.

Therefore, it would have been obvious to combine Harrington with Arakawa to obtain the invention as specified in claims 1, 13, 14, 17-19, 24, 27, and 29.

Regarding claim 2, Arakawa and Harrington disclose the system discussed in claim 1, and Arakawa further discloses a storage unit that stores said vector data and said information concerning the color within the enclosed area (see paragraphs [0014]-[0015] and [0018]).

Regarding claim 3, Arakawa and Harrington disclose the system discussed in claim 2, and Arakawa further discloses a storage area for storing information (see paragraphs [0014]-[0015]) and Harrington further discloses information concerning the line widths (see column 1 lines 42-46 and column 2 lines 35-40 and 44-59).

Regarding claim 7, Arakawa and Harrington disclose the system discussed in claim 2, and Arakawa further discloses wherein said storage unit further stores said second information concerning the color of said line graphics (see paragraphs [0010] and [0014]-[0018]).

Regarding claims 8, 15, 22, 27, and 32, Arakawa and Harrington disclose the system discussed in claims 1, 14, 19, 24, and 29, and Arakawa further discloses wherein said vector data are generated by converting the line graphics into core line graphics (see Drawings 5 and 7 and paragraphs [0014]-[0018]).

Regarding claim 10, Arakawa and Harrington disclose the system discussed in claim 1, and Arakawa further discloses wherein said image processing apparatus is built into a scanner (see Drawing 1 and paragraph [0015]).

Regarding claim 11, Arakawa and Harrington disclose the system discussed in claim 1, and Arakawa further discloses wherein said image processing apparatus is built into a server that provides image processing services (see Drawing 1 and paragraph [0014]).

Regarding claim 12, Arakawa and Harrington disclose the system discussed in claim 1, and Harrington further discloses wherein said image processing apparatus is built into a printer (see column 1 lines 9-12 and column 2 lines 20-23).

6. Claims 4, 20, 25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arakawa and Harrington as applied to claims 1, 19, 24, and 29 above, and further in view of Kinjo.

Arakawa and Harrington do not disclose expressly wherein said processor selects multiple internal points within the extracted enclosed area and detects the color within the extracted enclosed areas based on color information of the multiple internal points.

Kinjo discloses wherein said processor selects multiple internal points within the extracted enclosed area and detects the color within the extracted enclosed areas based on color information of the multiple internal points (see column 16 line 54-column 17 line 17, column 20 line 47-column 21 line 12, column 23 lines 8-16, column 30 line 10-column 31 line 22, column 38 lines 47-65, and column 39 lines 20-35).

Arakawa, Harrington, & Kinjo are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the detection of color enclosed in an area using multiple internal points as described by Kinjo with the system of Arakawa and Harrington.

The suggestion/motivation for doing so would have been to accurately distinguish the color inside of the enclosed area.

Therefore, it would have been obvious to combine the detection of color aspect of Kinjo with Arakawa and Harrington to obtain the invention as specified in claim 4.

7. Claims 5, 21, 26, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arakawa, Harrington, and Kinjo as applied to claims 4, 20, 25, and 30 above, and further in view of Behlok.

Arakawa, Harrington, and Kinjo do not disclose expressly wherein according to the said processor generates a histogram of the color information of the multiple internal points and executes statistical processes based on the histogram to detect color within the extracted enclosed area.

Behlok discloses wherein according to the said processor generates a histogram of the color information of the multiple internal points and executes statistical processes based on the histogram to detect color within the extracted enclosed area (see column 5 lines 36-39 and column 6 lines 46-67).

Arakawa, Harrington, and Kinjo, & Behlok are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of histograms for color detection of Behlok with the system of Arakawa, Harrington, and Kinjo.

The suggestion/motivation for doing so would have been provide a more accurate color and modification detection system (see also column 4 lines 12-25 of Behlok).

Therefore, it would have been obvious to combine the histogram aspect of Behlok with Arakawa, Harrington, and Kinjo to obtain the invention as specified in claims 5, 21, 26, and 31.

8. Claims 9, 16, 23, 28, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arakawa and Harrington as applied to claims 1, 14, 19, 24, and 29 above, and further in view of Iijima.

Arakawa and Harrington do not disclose expressly wherein said processor compares the line widths of the line graphics with a specified threshold value and generates said vector data according to comparison results.

Iijima discloses wherein said processor compares the line widths of the line graphics with a specified threshold value and generates said vector data according to comparison results (see column 4 lines 14-36 and 52-65, column 7 lines 10-25, and column 7 line 44-column 8 line 3, reference discloses a method for determining the thickness of a line contained in a digital document by comparing the line to known values of lines that are thin, medium thickness, or thick and being able to change thickness along with color for future processing and reproduction).

Arakawa, Harrington, & Iijima are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the thickness and alteration method of Iijima with the system of Arakawa and Harrington.

Art Unit: 2622

The suggestion/motivation for doing so would have been to allow a user to alter the thickness of a line graphic to allow the image to be scaled up or down without having the line graphic become too large or too small.

Therefore, it would have been obvious to combine Iijima with Arakawa and Harrington to obtain the invention as specified in claims 9, 16, 23, 28, and 33.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show the state of the art refer to the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

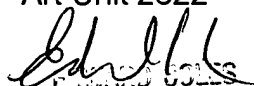
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached at (571) 272-7402. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRM

Mark R. Milia
Examiner
Art Unit 2622


EDWARD GILLS
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2600